

2009-10 Influenza Epidemiology and Surveillance Weekly Status Report for Kansas

Week Ending November 7, 2009

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Executive Summary

D. Charles Hunt, MPH, State Epidemiologist and Director Bureau of Surveillance and Epidemiology, Kansas Department of Health and Environment

Overview

Influenza activity throughout Kansas remains extremely high and widespread, particularly for this time of year. Last week marks the 11th straight week of elevated influenza activity in Kansas, as measured by the percentage of patients seeking care for influenza-like illness (ILI) in our surveillance network of outpatient clinics known as ILINet. Although we are observing an apparent decline in influenza activity by several measures as detailed below, there are several important factors to keep in mind as we assess the impact of this influenza pandemic.

While we generally consider influenza season to start around the first of October each year and run through the end of May, we monitor influenza year-round to some degree. This provides us not only the ability to more accurately determine what baseline levels of activity are, but also to detect unusual activity. In fact, it was through routine surveillance in ILINet that the current 2009 H1N1 influenza A virus was first detected in the U.S. back in April – well beyond what is typically the peak of influenza season in the U.S. in January or February.

During late October and early November in a typical year, we would expect approximately 2% of patients seeking care in outpatient clinics to have ILI. And although we have observed a decline on this indicator over the past two weeks, 5.6% of patients – more than two times the baseline – were seeking care for ILI in our sentinel clinics last week. And despite the decline in activity observed for the state as a whole, there can be substantial geographic variation. For example, in the southeast region of the state, 12% of patients – more than twice the state rate – sought care for ILI in our reporting sentinel clinics last week, and the highest rates of hospital admissions for pneumonia and influenza were also observed in this region. High rates of school absenteeism appear to have been more prevalent in the southeast region compared to most of the rest of the state as well, with 37% of elementary schools, 39% of middle schools, and 37% of high schools reporting 10% or higher absenteeism. Statewide, 16% of high schools, 15% of middle schools, and 11% of elementary schools were reported to have 10% or higher absenteeism. The average absenteeism rate in Kansas schools is approximately 5%, so despite the recent decreases, a substantial percentage of schools throughout the state are continuing to report absenteeism rates that are at least twice as high as what they typically experience throughout the year.

Through the end of last week, 17 deaths due to pandemic 2009 H1N1 influenza A virus had been confirmed in Kansas. As we have indicated in media releases regarding these deaths, it is important to note that the number of deaths confirmed to be caused by pandemic H1N1 influenza under-represents the true number of deaths. While it is not feasible to precisely determine the number of influenza-related deaths, we utilize the percent of all deaths caused by influenza or pneumonia – one of the most common complications of influenza – as an indicator of the impact of influenza. As noted in this week's report, the percent of deaths reported in Kansas as being caused by pneumonia or influenza remains similar to the national percentage, which has been above the epidemic threshold for five consecutive weeks.

In summary, our surveillance data indicate that despite the recent declines across several indicators, the current influenza pandemic is causing substantial morbidity, along with stresses on the health care sys-

Executive Summary (continued)

tem and schools across the state. And it is also important to remember that it is typical for influenza pandemics to occur in waves lasting several weeks, so increases in activity in the coming weeks and months should be anticipated.

Outpatient Visits for Influenza-like Illness (ILINet)

Fifty-two (70%) of the 74 ILINet sites in Kansas reported ILI data for the week ending November 7th. As noted above, the percentage of ILI visits at outpatient clinics decreased again from 8% last week to 5.6% this week. Despite a continued decrease, the percentage of ILI visits remains above the expected levels during a normal influenza season. Nationally, the percentage of ILI patient visits reported the week ending October 31 remained 8.0%.

All regions experienced a decline in the percentage of ILI visits reported except the southeast region. The percentage of ILI visits nearly doubled from 6.2% to 12% in the southeast region. The northwest regions percentage of ILI visits has declined to levels expected during a normal influenza season.

Hospital Admissions for Pneumonia or Influenza (EMSystems)

For the week ending November 7, 95 (72%) of 132 hospitals reported 443 patients who were admitted for pneumonia or influenza. The statewide rate of hospital admissions per 100 bed days decreased slightly from 0.93 compared to 0.85 reported last week.

The southeast region continues to have the highest rates in the state despite a decrease from 1.34 last week to 1.27 this week. The Kansas City Metro region had the largest change in rates from 1.09 last week to 0.62 this week. The rates increased in the northwest and northeast regions and decreased in the south central, southwest, southeast, and Kansas City Metro regions.

Hospital Situational Awareness

On Wednesday, November 4, 113 (84%) of 134 hospitals reported situational awareness information through EMSystems. Compared to information that was reported for the previous Wednesdays, the percentage of hospitals reporting decreased demand for patient care services decreased throughout the state for the second week in a row. Decreases were observed in the northwest, Kansas City Metro, south central and southeast regions. The Kansas City Metro region had the largest decrease in the percentage of hospitals reporting increased demand for patient care services (from 33% to 0%). Despite the high level of activity in other indicators, the southeast region also reported 0% of hospitals reporting increased demand for patient care services.

Mortality Due to Pneumonia or Influenza

Thirty-seven (7.6%) of the 486 deaths reported to KDHE during the week ending November 7 were due to pneumonia or influenza. This represents a slight increase compared to last week. The largest number of pneumonia and influenza deaths is attributed to persons 65 years and older. Since September 26, no deaths have been reported in persons less than 25 years of age. Nationally, the percentage of all deaths due to pneumonia or influenza reported the week ending October 31 was 7.4%.

Executive Summary (continued)

Self-reported Influenza-like Illness

No new data for interviews were included in this week's report.

School Absenteeism

For the week ending November 6, 92 (88%) of the 105 Kansas counties reported the percentage of schools reporting 10% or greater absenteeism. The statewide percentages continued to decrease for all categories compared to the previous week: from 15% to 11% for elementary schools, from 17% to 15% for middle schools, and from 22% to 16% for high schools. This decrease from last week was smaller in magnitude than the decrease reported last week from the week before. The percentages of schools reporting 10% or greater absenteeism decreased or remained the same for all regions, with the exception of the percentages for the north central elementary and high schools, which increased from 28% to 37% and 17% to 27% respectively.

Despite the decrease in percentages for the three school categories, the southeast region continues to report the highest percentages of schools reporting 10% or greater absenteeism for the second week in a row (36% for elementary schools, 39% for middle schools, and 37% for high schools). In contrast, the Kansas City Metro region continues (3 weeks in a row) to report the lowest percentages among all schools reporting 10% or greater absenteeism (3% for elementary schools, 7% for middle schools, 6% for high schools).

The continued overall decrease in the percentage of schools reporting 10% or greater absenteeism statewide is reflected in the number of school closings reported to KDHE. For the second week in a row, no school closures were reported the week ending November 6.

Laboratory-based Surveillance

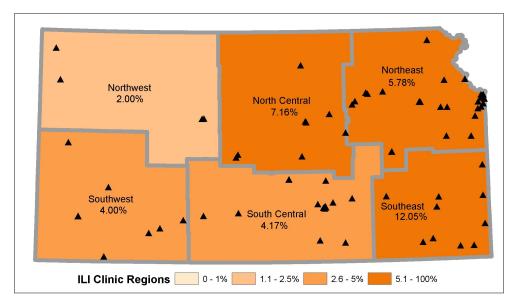
Since October 10, a total of 1,350 specimens have been submitted to the KDHE Laboratories (KHEL) for testing. Of these, 761 (56%) have tested positive for influenza A (2009 H1N1). During the week ending November 7, 244 specimens were submitted to KHEL. Of these, 90 (37%) tested positive for influenza A (2009 H1N1). The percentage of submitted specimens which tested positive for influenza A (2009 H1N1) decreased from 57% last week to 37% this week.

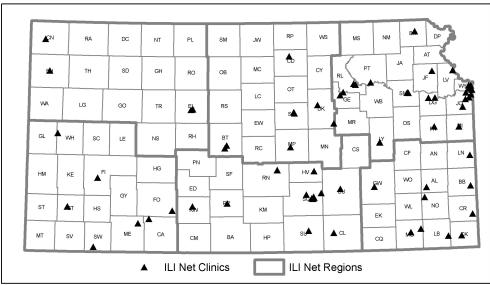
Outpatient Influenza-like Illness (Surveillance Conducted via ILINet) Week ending November 07, 2009



Percentage of Visits for Influenza-like Illness (ILI) Reported by ILINet Sites, by Region November 1 - November 7, 2009





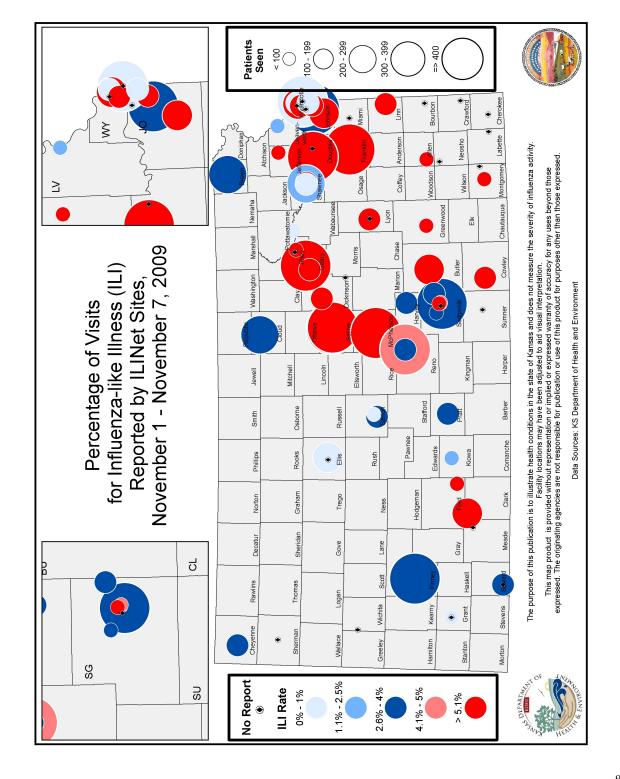


The purpose of this publication is to illustrate health conditions in the state of Kansas and does not measure the severity of influenza activity.

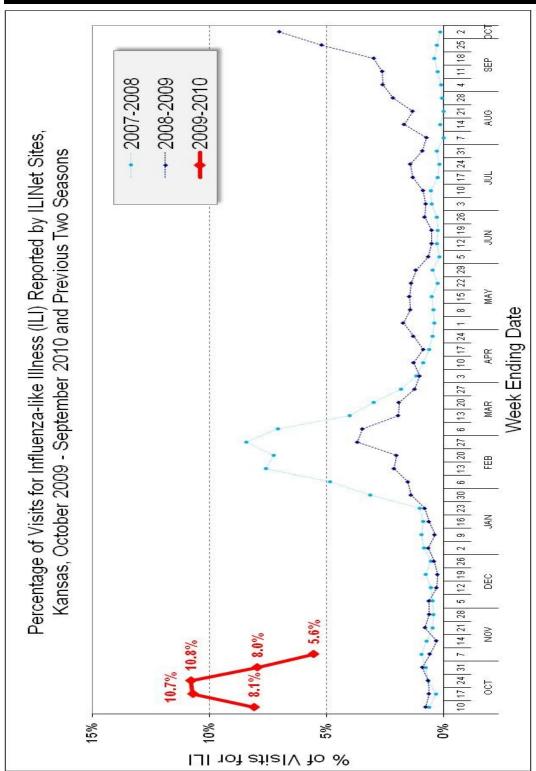
This map product is provided without representation or implied or expressed warranty of accuracy for any uses beyond those expressed. The originating agencies are not responsible for publication or use of this product for purposes other than those expressed.

Data Sources: KS Department of Health and Environment

Outpatient Influenza-like Illness (Surveillance Conducted via ILINet) Week ending November 7, 2009

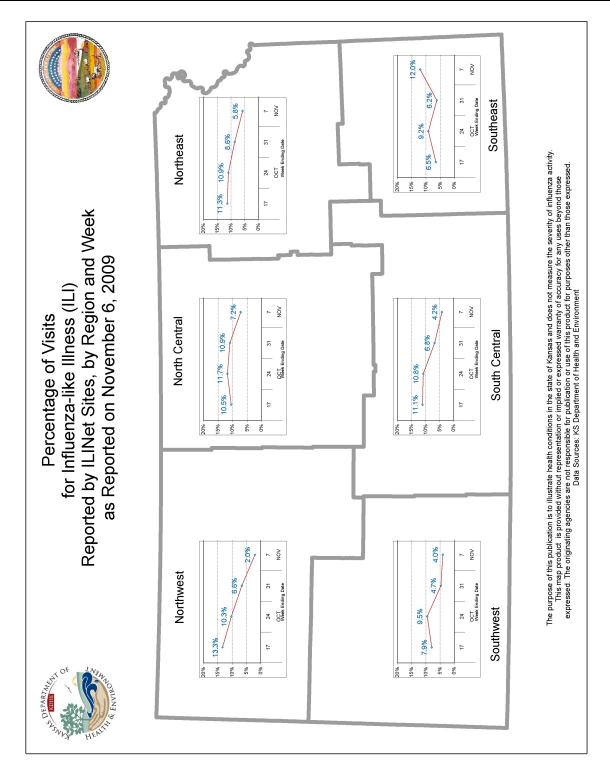


Outpatient Influenza-like Illness (Surveillance Conducted via ILINet) Week ending November 07, 2009



was unique to the 2008-2009 season; data for that week has been excluded from the chart. ILINet sites vary in location, numober 10, 2009. Week 40 of 2008 ended October 4, 2008, and week 40 of 2007 ended October 6, 2007, and so on. Week 53 /ears are plotted according to week number corresponding to the 2009-2010 week ending date. Week 40 of 2009 ended Ocber, and type (student health, family practice, etc.) each season as new sites are enrolled and former sites are deactivated. The X-axis represents the week ending dates for the 2009-2010 surveillance year. Data from the previous two surveillance

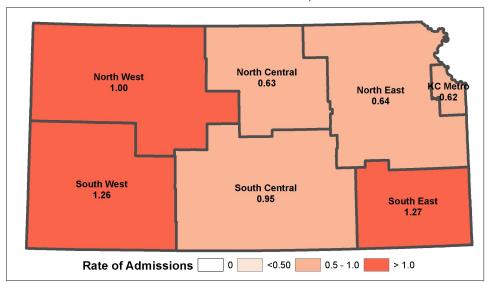
Outpatient Influenza-like Illness (Surveillance Conducted via ILINet) Week ending November 07, 2009

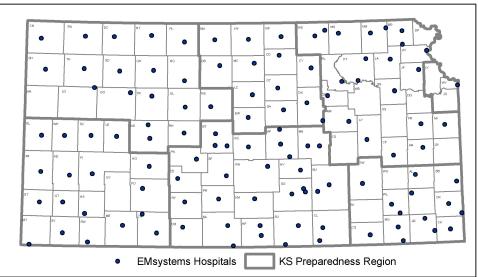




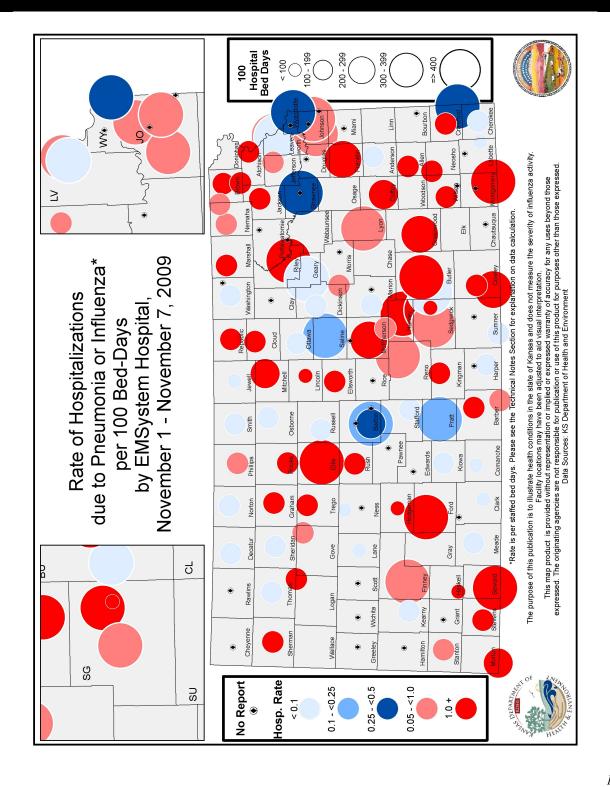
Rate of Hospitalizations due to Pneumonia or Influenza per 100 Bed-Days* by Preparedness Region, November 1 - November 7, 2009

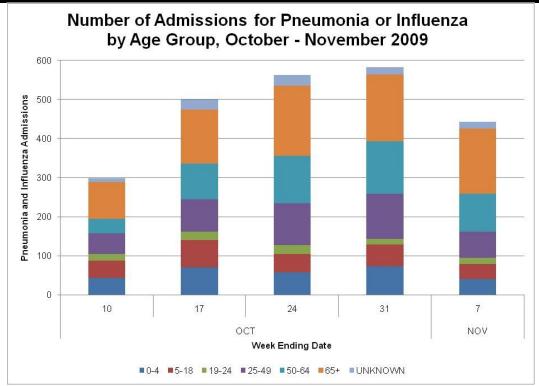


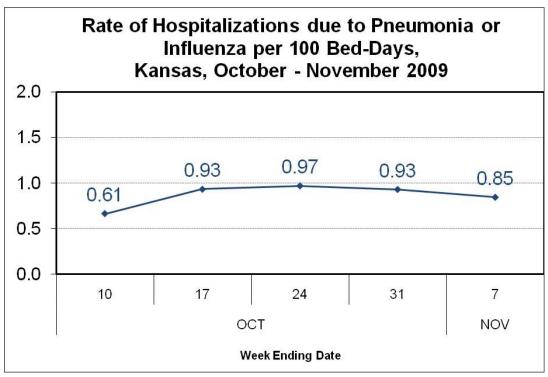


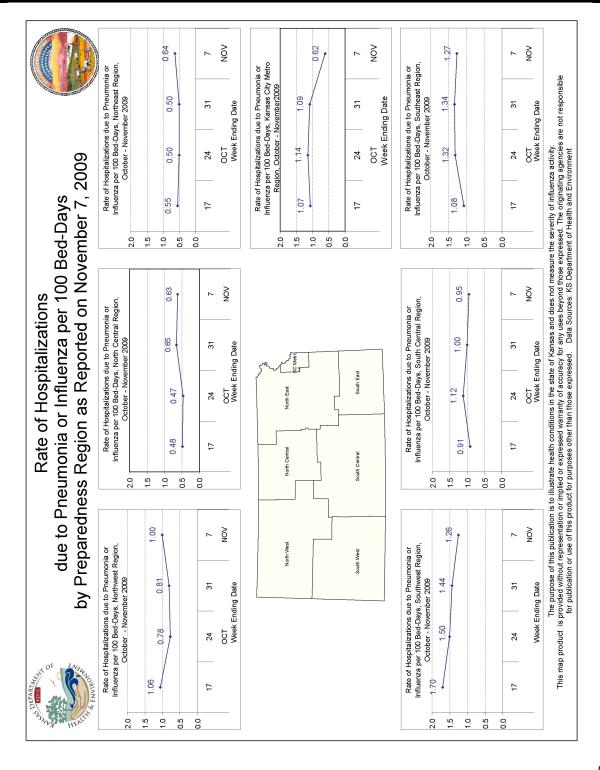


*Rate is per staffed bed days. Please see the Technical Notes Section for explanation on data calculation.

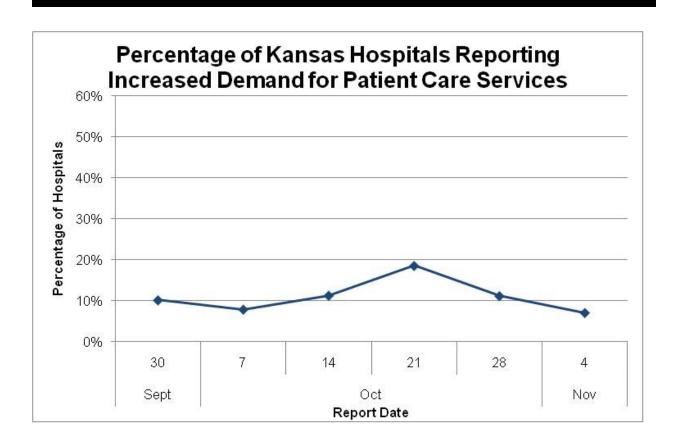




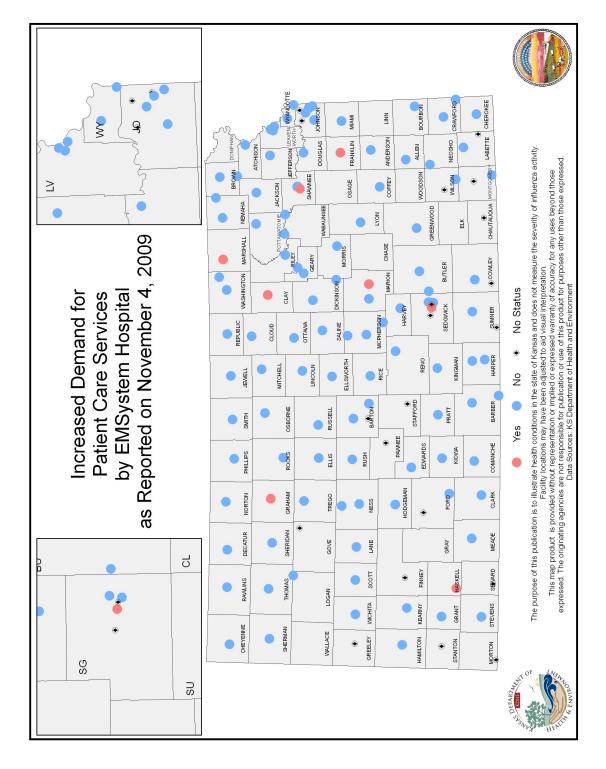




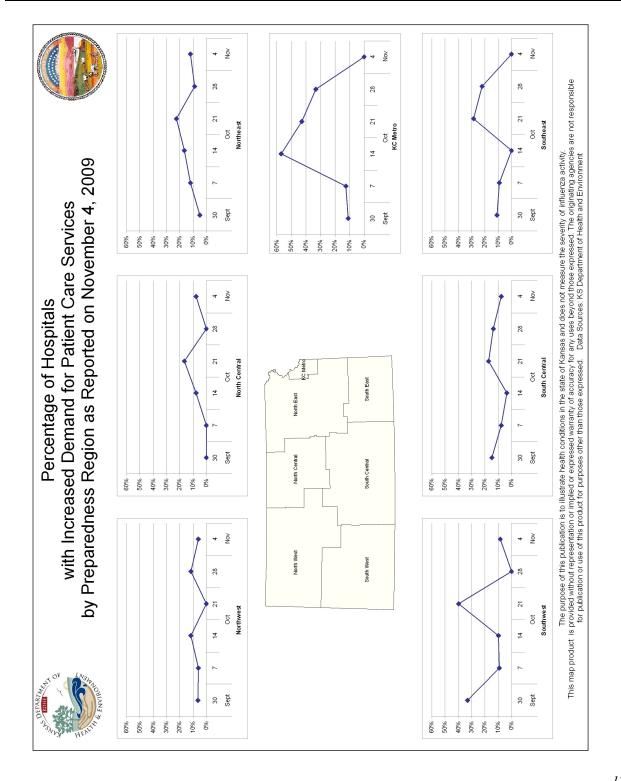
Hospital Situational Awareness (Surveillance Conducted via EMSystems)



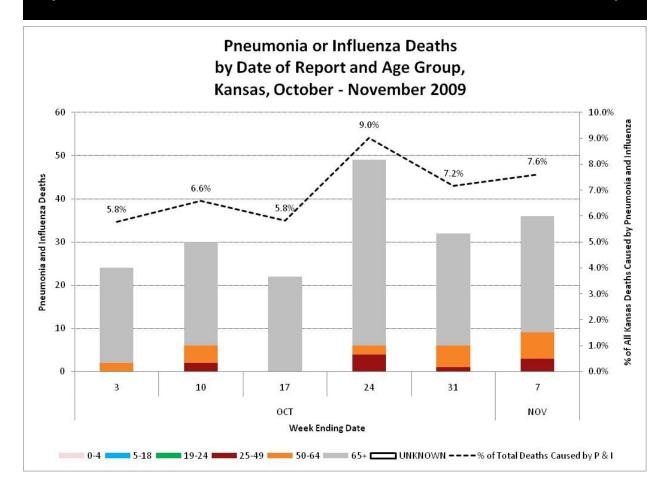
Hospital Situational Awareness (Surveillance Conducted via EMSystems)



Hospital Situational Awareness (Surveillance Conducted via EMSystems)



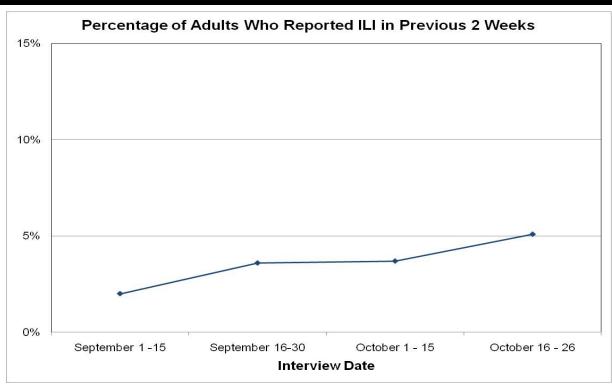
Mortality Due to Pneumonia or Influenza (Surveillance Conducted via KDHE Vital Statistics)

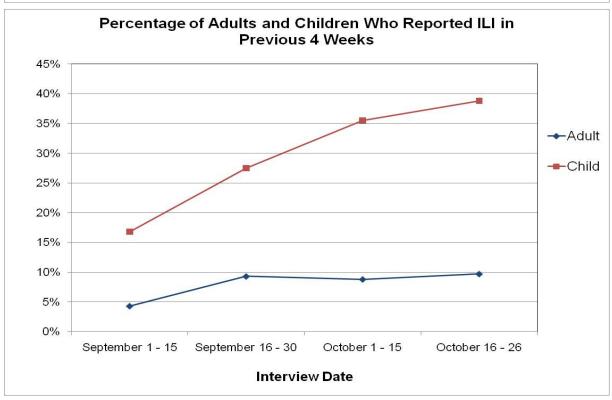


Cumulative Number of Pneumonia or Influenza Deaths Reported by Age Group, September 26—November 7, 2009

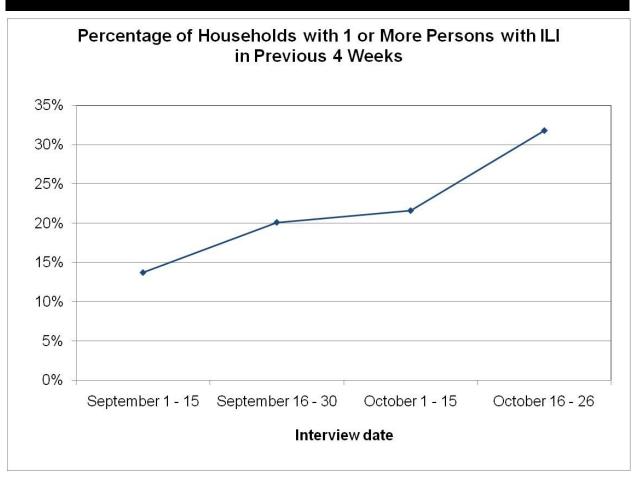
0-4	5-18	19-24	25-49	50-64	65+	Unknown	Total
0	0	0	11	19	201	1	232

Self-Reported Influenza-like Illness (Surveillance Conducted via KDHE BRFSS)





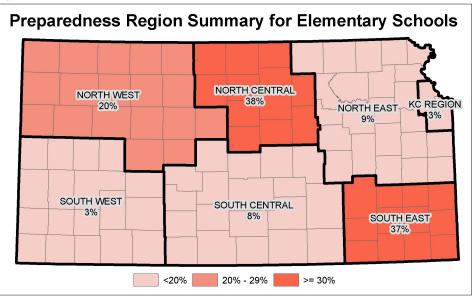
Self-Reported Influenza-like Illness (Surveillance Conducted via BRFSS)

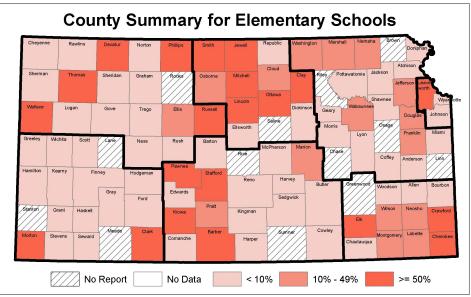




Percentage of Schools Reporting 10% or Greater Absenteeism November 2 - November 6, 2009



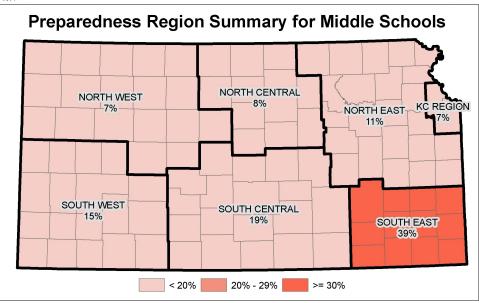


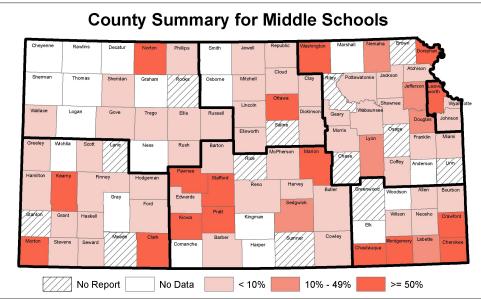




Percentage of Schools Reporting 10% or Greater Absenteeism November 2 - November 6, 2009



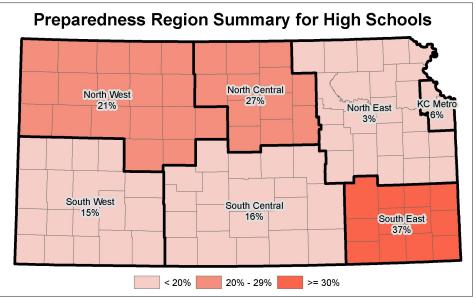


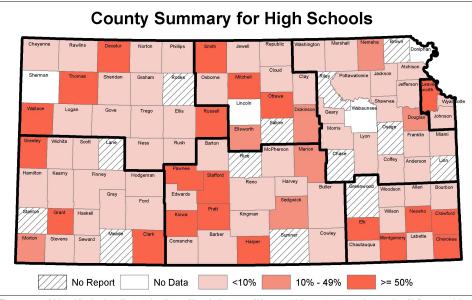


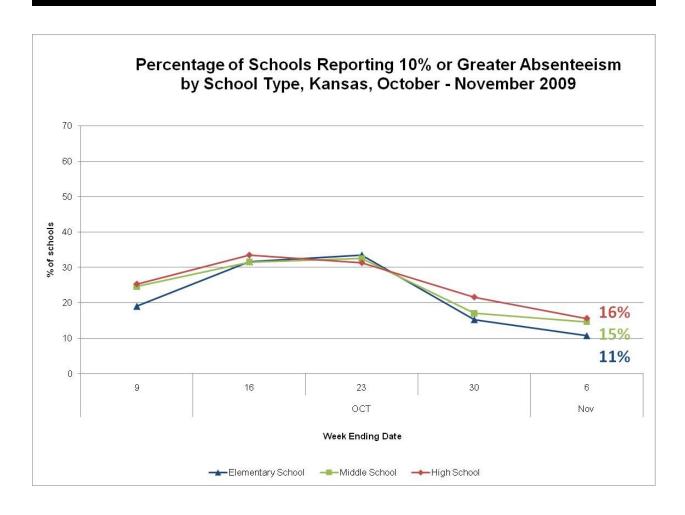


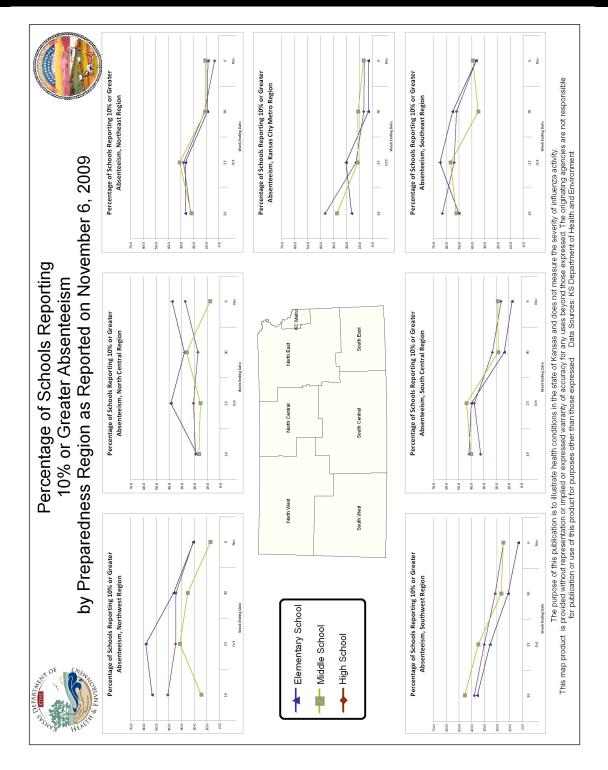
Percentage of Schools Reporting 10% or Greater Absenteeism November 2 - November 6, 2009











Percentage of Schools Reporting 10% or Greater Absenteeism by Category and County, Week ending November 06, 2009

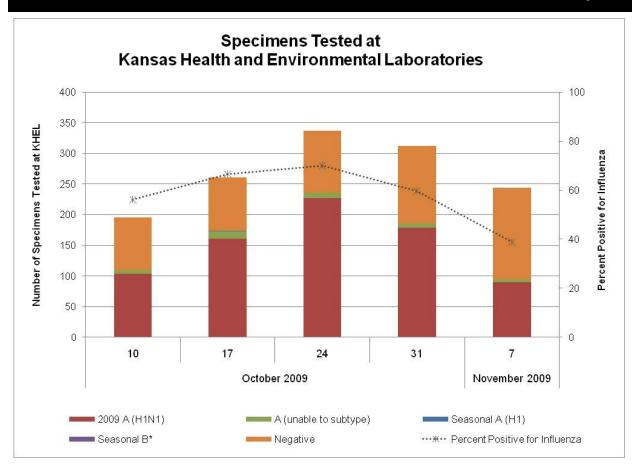
County	Elementary School	Middle School	High School
ALLEN	0%	0%	0%
ANDERSON	0%		0%
ATCHISON	0%	0%	0%
BARBER	50%	0%	0%
BARTON	0%	0%	0%
BOURBON	0%	0%	0%
BROWN	F		
BUTLER	7%	9%	8%
CHASE			
CHAUTAUQUA	0%	50%	0%
CHEROKEE	75%	67%	75%
CHEYENNE	0%		0%
CLARK	50%	50%	50%
CLAY	50%	0%	0%
CLOUD	40%	0%	0%
COFFEY	0%	0%	0%
COMANCHE	0%		0%
COWLEY	8%	0%	0%
CRAWFORD	67%	100%	50%
DECATUR	100%		100%
DICKINSON	0%	0%	33%
DONIPHAN	0%	50%	
DOUGLAS	15%	25%	33%
EDWARDS	0%	0%	0%
ELK	100%		100%
ELLIS	10%	0%	0%
ELLSWORTH	0%	0%	33%
FINNEY	0%	0%	0%
FORD	0%	0%	0%
FRANKLIN	20%	0%	0%
GEARY	0%	0%	0%
GOVE	0%	0%	0%
GRAHAM	0%		0%
GRANT	0%	0%	50%
GRAY	0%		0%

County	Elementary School	Middle School	High School
GREELEY	0%	0%	100%
GREENWOOD			
HAMILTON	0%	0%	0%
HARPER	0%		50%
HARVEY	0%	0%	0%
HASKELL	0%	0%	0%
HODGEMAN	0%	0%	0%
JACKSON	0%	0%	0%
JEFFERSON	14%	33%	0%
JEWELL	100%	0%	0%
JOHNSON	0%	0%	0%
KEARNY	0%	50%	0%
KINGMAN	0%		0%
KIOWA	50%	100%	50%
LABETTE	17%	33%	0%
LANE			
LEAVENWORTH	83%	60%	100%
LINCOLN	50%	0%	
LINN			
LOGAN	0%		0%
LYON	7%	10%	0%
MARION	40%	60%	40%
MARSHALL	17%		0%
MCPHERSON	9%	0%	0%
MEADE			
MIAMI	0%	0%	0%
MITCHELL	100%	0%	100%
MONTGOMERY	38%	100%	50%
MORRIS	0%	0%	0%
MORTON	50%	50%	33%
NEMAHA	38%	25%	14%
NEOSHO	40%	0%	67%
NESS	0%		0%
NORTON	0%	100%	0%
OSAGE			

Percentage of Schools Reporting 10% or Greater Absenteeism by Category and County, Week ending November 06, 2009

County	Elementary School	Middle School	High School
OSBORNE	33%		0%
OTTAWA	67%	100%	50%
PAWNEE	50%	100%	50%
PHILLIPS	50%	0%	0%
POTTAWATOMIE	0%	0%	0%
PRATT	25%	100%	100%
RAWLINS	0%		0%
RENO	0%	0%	0%
REPUBLIC	0%	0%	0%
RICE			
RILEY			
ROOKS			
RUSH	0%	0%	0%
RUSSELL	67%	0%	50%
SALINE			
SCOTT	0%	0%	0%
SEDGWICK	2%	10%	10%
SEWARD	0%	0%	0%
SHAWNEE	0%	0%	0%
SHERIDAN	0%	0%	0%
SHERMAN	0%		
SMITH	50%		50%
STAFFORD	67%	67%	67%
STANTON			
STEVENS	0%	0%	0%
SUMNER			
THOMAS	100%		100%
TREGO	0%	0%	0%
WABAUNSEE	33%	0%	
WALLACE	100%	0%	50%
WASHINGTON	40%	100%	0%
WICHITA	0%		0%
WILSON	20%	0%	0%
WOODSON	0%		0%
WYANDOTTE	0%	0%	0%

Laboratory Testing (Surveillance Conducted via Kansas Health and Environmental Laboratories)



Kansas Department of Health and Environmental Laboratories October 10—November 7, 2009

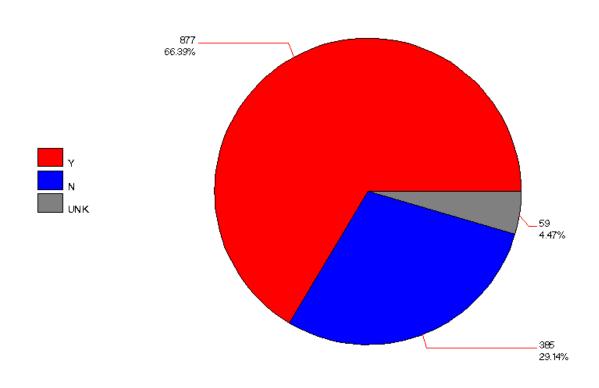
No. of specimens submitted for testing at KHEL 1350

No. of specimens testing positive for influenza A (2009 H1N1) 761 (56%)

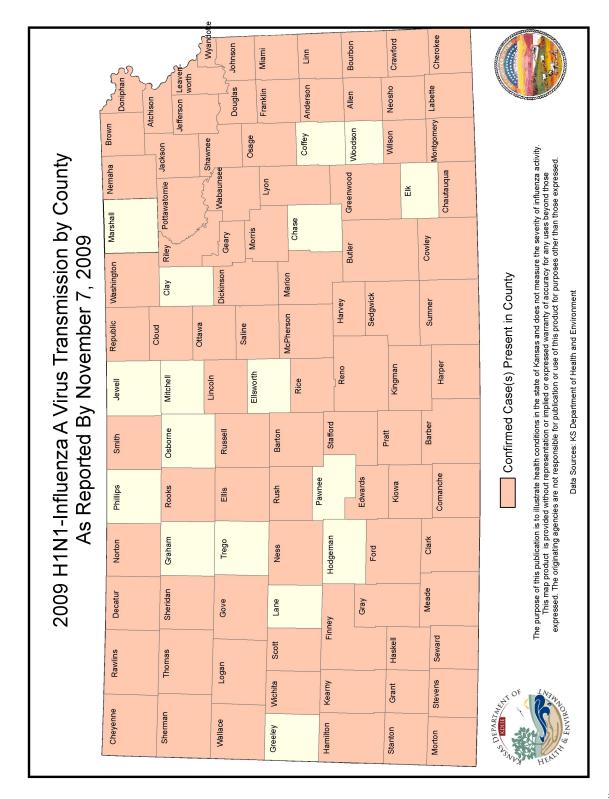
Laboratory Testing (Surveillance Conducted via Kansas Health and Environmental Laboratories)

Influenza Specimens Tested at KHEL by Hospitalization Status

October 4, 2009 - November 07, 2009 FREQUENCY of Hospitalized



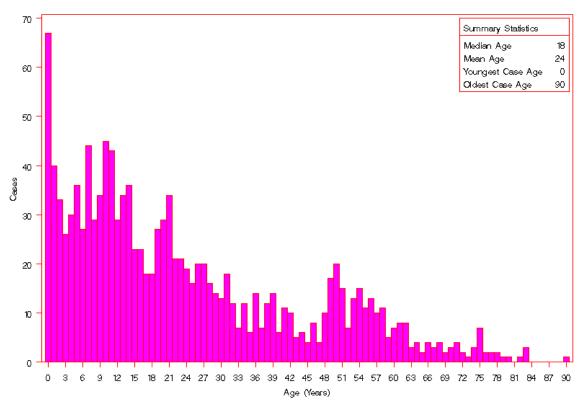
Descriptive Epidemiology of KHEL-Confirmed H1N1 Cases



Descriptive Epidemiology of KHEL-Confirmed H1N1 Cases

Characteristics of Laboratory Confirmed Cases			
Median Age (Years)	18.0		
Age Range (Years)	<1 to 90		
Percent (%) by Age Group:			
<5 Years	(16)		
5 to 24 Years	(47)		
25 to 49 Years	(22)		
50 to 64 Years	(12)		
65+ Years	(4)		
Percent (%) Male	(47)		
Percent (%) Hispanic or Latino	(18)		
Percent (%) by Race			
White Only	(72)		
Black Only	(8)		
Other	(5)		
Unknown	(14)		
Percent (%) Died	(1)		

Age Distribution of Laboratory Confirmed Cases as of November 07, 2009



Technical Notes

Outpatient Influenza-like Illness Surveillance (ILINet)

Information on patient visits to health care providers for influenza-like illness is collected through the US Outpatient Influenza-like Illness Surveillance Network (ILINet). For this system, ILI is defined as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat in the absence of a KNOWN cause other than influenza.

ILINet clinics in Kansas report the number of patients seen with influenza-like illness each week. The information reflects data collected for the week ending the previous Saturday. As of October 21, 2009, seventy-six sites have enrolled in ILINet in Kansas. The maps and charts on pages 6-9 show the percentage of ILI visits reported by region and by site by week ending date. Each percentage was calculated by dividing the number of patients seen with ILI at the clinic by the total number of patients seen and multiplying by 100.

Influenza-like illness data are collected from Sunday through Saturday of each week. Each participating clinic is requested to summarize the data weekly and submit the data by noon on Tuesday of the following week. The information on these charts may change each week because of data that may have been submitted after the reporting deadline.

Hospital Admissions for Pneumonia or Influenza Surveillance (EMSystems)

Hospitals throughout Kansas submit information to the Kansas Hospital Association (KHA) through EM-Systems, a secure, online reporting system. One hundred and thirty-one (131) hospitals that have access to EMSystems are included in this surveillance program. KDHE has partnered with KHA to collect aggregate information on patients hospitalized for pneumonia or influenza.

The maps and graphs on pages 10-13 show the rate of hospital admissions for pneumonia or influenza reported by region and by hospital by week ending date. Each rate was calculated by dividing the number of patients admitted to the hospital with pneumonia or influenza by bed days. The denominator bed days was calculated by multiplying the number of staffed beds by seven.

Hospital Situational Awareness (EMSystems)

As part of a U.S. Department of Health and Human Services assessment project, hospitals throughout Kansas submit information to the Kansas Hospital Association (KHA) through EMSystems, a secure, online reporting system. Every Wednesday, 134 hospitals in Kansas provide information that describe the current situation of the hospital at the time of the report. The data represent a "snapshot" in time and do not take into account changes observed over a span of time.

The maps presented in this report on pages 14-16 are the responses to the following question: "Is the facility seeing an increasing demand for patient care services, such as scheduling, triage, assessment, treatment, admissions, transfer, and discharge?". Percentages were calculated by dividing the number of hospitals that responded "Yes" by the total number of hospitals that reported information and multiplying by 100.

Mortality Due to Pneumonia or Influenza

The Office of Vital Statistics within the Bureau of Public Health Informatics at KDHE receives and preserves vital records for events (births, deaths, marriages, and divorces) which occur in Kansas. The mortality data on page 17 reflects the number and percentage of persons whose primary or underlying cause of death was attributed to pneumonia and / or influenza.

Self-Reported Influenza-like Illness

The Behavioral Risk Factor Surveillance System (BRFSS), which is coordinated and partially funded by the Centers for Disease Control and Prevention, is the largest continuously conducted telephone survey

Technical Notes (continued)

Self-Reported Influenza-like Illness (continued)

in the world. It is conducted in every state, the District of Columbia, and several United States territories. The first BRFSS survey in Kansas was conducted as a point-in-time survey in 1990, and Kansas has conducted the BRFSS survey annually since 1992.

Beginning in September 2009, the BRFSS questionnaire was revised to include questions to assess influenza-like illness among adult respondents and other members of the household. The graphs on pages 18 and 19 provide the percent of adults, children, and households reporting ILI.

School Absenteeism Surveillance

Data are collected by local health departments (LHDs) during each school week. LHDs report the number of schools with 10% or greater absenteeism and the total number of schools that submit data each week. LHDs submit data to KDHE by noon on Tuesday of the following week.

LHDs report county data in three categories: elementary school (i.e. K-5), middle school (i.e., 6-8), and high school (i.e., 9-12). The designated school category is based upon the majority of grades within the school; for instance, a school consisting of grade levels K-6 would be classified as an elementary school.

Percentages of school absenteeism by county shown on pages 20-26 may be unstable and changes over time should be interpreted with caution. "No report" classification indicates the LHD failed to report any data to KDHE. "No data" classification indicates that either the school(s) did not report any data to the LHD or there are no schools in the county for the specific school category.

Laboratory Testing at Kansas Department of Health and Environmental Laboratories (KHEL)

The information on pages 27 and 28 represents data reported to KDHE for the week ending the previous Saturday. Prior to September 1, 2009 persons with symptoms consistent with ILI were tested at KHEL. Beginning September 1, specimens were only tested if the person was hospitalized, had died and the cause of death was suspected to be influenza, or if the person was seen at an ILINet Clinic Site.

Descriptive Epidemiology for Laboratory-Confirmed H1N1 Cases at KHEL

The information on pages 29 and 30 represents data reported to KDHE for the week ending the previous Saturday. Only cases that were laboratory confirmed at KHEL are included.

Data Quality Indicators

Percentage of Sites Represented in the Current Week's Data for the Following Sections:

Outpatient Influenza-like Illness Surveillance — 70% (52 of 74 ILINet sites)

Hospital Admissions for Pneumonia or Influenza Surveillance (EMSytems) - 72% (95 of 132 hospitals)

Hospital Situational Awareness (EMSystems) - 84% (113 of 134 hospitals)

School Absenteeism Surveillance— 88% (92 of 105 Local Health Departments)

Appendix - Number and County Location of ILINet Clinic Sites

Allen 1 **Barton** 2 **Bourbon** 1 **Brown** 1 **Butler** 1 Cherokee 1 Cheyenne 1 Clark Cloud 1 Cowley 1 Crawford 1 Dickinson 3 **Douglas** 2 2 **Ellis Finney** 1 **Ford** 1 Franklin 1 2 Geary Grant 2 Greenwood 1 Harvey 1 **Jefferson** 1 5 Johnson Kiowa 1 Labette 1 Leavenworth Linn 1 Lyon 2 **McPherson** 1 Meade 1 Miami 1 Montgomery Neosho 1 **Pottawatomie** 1 Pratt 1 Reno 2 Riley 3 Saline 2 7 Sedgwick 2 **Seward Shawnee** 3 Sherman 1 Sumner 1 Wichita 1 Wyandotte 6

Appendix - List of Hospitals Included in Hospital Surveillance Section for Current Report

ALLEN COUNTY HOSPITAL IOLA

ANDERSON COUNTY HOSPITAL GARNETT

ASHLAND HEALTH CENTER

ATCHISON HOSPITAL

BOB WILSON MEM GRANT CO HOSP ULYSSES

CITIZENS MEDICAL CENTER COLBY

CLAY COUNTY MEDICAL CENTER

CLOUD COUNTY HEALTH CENTER CONCORDIA

COFFEY COUNTY HOSPITAL BURLINGTON

COFFEYVILLE REGIONAL MEDICAL CENTER

COMANCHE COUNTY HOSPITAL COLDWATER

COMMUNITY HOSPITAL ONAGA

COMMUNITY MEMORIAL HC MARYSVILLE

CUSHING MEMORIAL HOSPITAL

DECATUR COUNTY HOSPITAL OBERLIN

EDWARDS CO. HOSP. AND HC CTR. KINSLEY

ELLINWOOD DISTRICT HOSPITAL

ELLSWORTH COUNTY MEDICAL CENTER

FREDONIA REGIONAL HOSPITAL

GALICHIA HEART HOSPITAL

GEARY COMMUNITY HOSPITAL JUNCTION CITY

GOODLAND REGIONAL MEDICAL CENTER

GOVE COUNTY MEDICAL CENTER QUINTER

GRAHAM COUNTY HOSPITAL HILL CITY

GREELEY COUNTY HEALTH SERVICES TRIBUNE

GRISELL MEM. HOSP. DIST. NO. 1 RANSOM

HARPER COUNTY HOSP DIST NO 6 ANTHONY

HAYS MEDICAL CENTER

HIAWATHA COMMUNITY HOSPITAL

HILLSBORO COMMUNITY HOSPITAL

HOLTON COMMUNITY HOSPITAL

JEFFERSON CO. MEM. HOSPITAL WINCHESTER

JEWELL COUNTY HOSPITAL MANKATO

KEARNY COUNTY HOSPITAL LAKIN

KIOWA COUNTY MEM. HOSPITAL GREENSBURG

KIOWA DISTRICT HOSPITAL KIOWA

LABETTE HEALTH PARSONS

LANE COUNTY HOSPITAL DIGHTON

LINCOLN COUNTY HOSPITAL

LINDSBORG COMMUNITY HOSPITAL

LOGAN COUNTY HOSPITAL OAKLEY

MEADE DISTRICT HOSPITAL

MEMORIAL HOSPITAL ABILENE

MEMORIAL HOSPITAL MCPHERSON

MERCY HOSPITAL INDEPENDENCE

MERCY HOSPITAL MOUNDRIDGE

MERCY REGIONAL HEALTH CENTER MANHATTAN

MIAMI COUNTY MEDICAL CENTER PAOLA

MINNEOLA DISTRICT HOSPITAL

MITCHELL COUNTY HOSPITAL BELOIT

MORTON COUNTY HEALTH SYSTEM ELKART

NEMAHA VALLEY COMM. HOSPITAL SENECA

NESS COUNTY HOSPITAL DIST. NO. 2

NEWTON MEDICAL CENTER

NINNESCAH VALLEY HEALTH SYS. KINGMAN

NORTON COUNTY HOSPITAL

OLATHE MEDICAL CENTER

OSBORNE COUNTY MEMORIAL HOSPITAL

OTTAWA COUNTY HEALTH CENTER MINNEAPOLIS

PHILLIPS COUNTY HOSPITAL PHILLIPSBURG

PRATT REGIONAL MEDICAL CENTER

PROMISE REGIONAL MEDICAL CENTER HUTCHINS

RANSOM MEMORIAL HOSPITAL OTTAWA

REPUBLIC COUNTY HOSPITAL BELLEVILLE

ROOKS COUNTY HEALTH CENTER PLAINVILLE

RUSH COUNTY MEMORIAL HOSPITAL LACROSSE

RUSSELL REGIONAL HOSPITAL

SABETHA COMMUNITY HOSPITAL

SAINT LUKE'S SOUTH HOSPITAL

SALINA REGIONAL HEALTH CENTER

SATANTA DISTRICT HOSPITAL AND LTCU

SCOTT COUNTY HOSPITAL

SHAWNEE MISSION MEDICAL CENTER

SHERIDAN COUNTY HEALTH COMPLEX HOXIE

SMITH COUNTY MEMORIAL HOSPITAL

SOUTH CENTRAL KANSAS RMC ARKANSAS CITY

SOUTHWEST MEDICAL CENTER LIBERAL

ST JOHNS MAUDE NORTON MEM HOSP-COLUMBUS

ST. CATHERINE HOSPITAL GARDEN CITY

ST. FRANCIS HEALTH CENTER TOPEKA

ST. MARYS HEALTH CENTER ST. MARYS

STAFFORD DISTRICT HOSPITAL

STANTON HEALTH CARE FACILITY JOHNSON

STEVENS COUNTY HOSPITAL HUGOTON

STORMONT VAIL HEALTHCARE TOPEKA

SUMNER COUNTY DIST. NO. 1 CALDWELL

SUSAN B. ALLEN MEM. HOSPITAL EL DORADO

UNIVERSITY OF KANSAS HOSPITAL

VIA CHRISTI REGIONAL MED CTR WICHITA

WASHINGTON COUNTY HOSPITAL

WESLEY MEDICAL CENTER WICHITA

WESTERN PLAINS MED. COMPLEX DODGE CITY

WILLIAM NEWTON HOSPITAL WINFIELD